

**REMARKS**

Entry of the foregoing, reexamination and further and favorable reconsideration of the subject application in light of the following remarks, pursuant to and consistent with 37 C.F.R. § 1.112, are respectfully requested.

**Amendment and Reply After Final Rejection**

On September 11, 2003, Applicants filed an Amendment and Reply After Final Rejection. Because this Amendment and Reply adds to the content of that filing, Applicants ask that this Amendment and Reply be substituted therefor.

**Accordingly, do not enter the Amendment and Reply After Final Rejection filed September 11, 2003.**

**Status of Application**

As is correctly reflected in the Office Action Summary, Claims 29-53 are pending. Acknowledgment has been of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f) and all certified copies of the priority documents have been received.

**Substitute Specification**

Despite having filed **both** a clean and marked-up copy of the substitute Specification on several occasions in the past (*see, e.g., Exhibit A - dated-stamped PTO postcards listing "Substitute Specifications (clean and marked)" dated February 19, 2002 and October 3, 2002*), Applicants hereby submit another substitute Specification — both a clean copy and a marked-up version. For the Examiner's convenience, paragraph numbers have been added in this substitute Specification. No new matter has been added to this substitute Specification.

The Examiner has asked that the reaction pathway shown in Paragraph 0004 be moved. Applicants have complied with this request. No new matter has been added by this change.

### **Summary of Amendments**

#### **Specification Amendments**

By the foregoing amendments, the Specification has been amended to clarify that the reaction pathway formerly found in Paragraph 0004 has been made into Figure 1 and to include a Brief Description of this Figure.

Support for Figure 1 can be found at Page 2 of the original application. Accordingly, no new matter has been added.

#### **Claim Amendments**

By the foregoing amendments, Claims 29-31, 33-36, and 38-53 have been amended; Claims 32 and 37 have been canceled; and Claims 54-55 have been added.

Claims 30 and 35 have been amended to specify that the modified nucleotide sequence has at least 90% identity to the nucleotide sequence of Claim 29 and Claim 34, respectively. Claims 54 and 55 have been added which specify that the modified nucleotide sequence has at least 95% identity to the nucleotide sequence of Claim 29 and Claim 34, respectively. Support for these amendments may be found at least in original Claims 1 and 4, respectively, and in what are now listed as Paragraphs 0029, 0030, 0040, 0046, and 0065 of the Specification.

Claims 31-33 and 36-53 have been amended to correct minor, typographical, and linguistic errors.

Claims 32 and 37 have been canceled, without prejudice or disclaimer, in light of the amendments made to Claims 30 and 35.

New Claims 54 and 55 have been added which depend from Claims 30 and 35, respectively. Support for these claims may be found at least in original Claims 1 and 4, at Page 11, Lines 4-21 of the original Specification, and at Paragraphs 0029 and 0030 of the attached Clean Copy of the Substitute Specification.

Accordingly, no new matter has been added by the foregoing amendments.

### **Claim Objections**

Claims 31, 36, and 51 were objected to as purportedly informal. Without conceding to the Examiner's arguments at Page 2 of the Official Action, Claims 31 and 36 have been amended as suggested by the Examiner. Withdrawal of these objections, as they pertain to Claims 31 and 36, is respectfully requested.

With regard to Claim 51, the Examiner asserts that this claim is "of improper dependent form for failing to further limit the subject matter of a previous claim . . . . Parent claim 49 already specifies that the plant is Camellia or Coffee." Applicants respectfully point out that the plant material in Claim 49 is selected from plant cells, plant tissues, and whole plants. Claim 51 further limits Claim 49 to plants, excluding plant cells and plant tissues (which are, in turn, covered by Claim 50). Claim 51 has been amended to make this relationship more clear. Consequently, Applicants maintain that Claim 51 is properly dependent from Claim 49. Withdrawal of this objection, as it applies to Claim 51, is respectfully requested.

### **Rejections Under 35 U.S.C. § 112, First Paragraph — Enablement**

Claims 29-32, 34-37, 39-43, and 52-53 were rejected under 35 U.S.C. § 112, First Paragraph, as purportedly broader in scope than the enabling disclosure provided by the Specification. *See Official Action, Pages 2-5, ¶ 6.* This rejection is respectfully traversed.

Not to acquiesce in the Examiner's rejection, but solely to facilitate prosecution, Applicants have amended Claims 30 and 35 to require that the modified nucleotide sequences have at least 90% identity to the sequence of SEQ ID NO:1. New Claims 54 and 55 require that the modified nucleotide sequences have at least 95% identity to the sequence of SEQ ID NO:1. Applicants reiterate that it is well within the abilities of the skilled artisan to make and use the claimed nucleotide sequences based upon the admittedly-enabled nucleic acid sequence of SEQ ID NO:2 in conjunction with the information presented by SEQ ID NO:1.

The Examiner admits that one can "make" nucleic acids encoding SEQ ID NO:1 (*See Official Action, Page 3, Last Sentence*), the Examiner's apparent difficulty is with the "use" part of the enablement inquiry, "a nucleic acid encoding such a protein cannot be expressed in a cell because it lacks a starting ATG." *See Official Action, Page 4, ¶ 2.* ATG is not the only starting codon. As explained in the attached material, while AUG [ATG] is usually the initiation codon, "in bacteria, GUG or UUG are also used." *See Exhibit B*, Benjamin Lewin, GENES V 179 (Oxford University Press, 1994). When one examines SEQ ID NO:2, he recognizes that preceding the amino acid described in SEQ ID NO:1, the nucleotides "gtg" are present. *See SEQ ID NO:2, nucleotides 93-95.* gtg [gug] is a start codon in bacteria, such as *E. coli*. After this start codon, one reads the nucleotides ttc atg aac, agg, ggg, gaa, etc. which correspond to amino acids Phe Met Asn Arg Gly Glu, etc., the amino acid sequence of SEQ ID NO:1. One can use SEQ ID NO:1 by adding a start codon to it, such as gtg, because SEQ ID NO:2 teaches one to do so and because the claims in question "comprise" SEQ ID NO:1, and therefore allow for the addition of such things.

Because those of skill in the art can, without undue experimentation, both make and use the invention described in Claims 29-31, 34-36, 39-43, and 52-53, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, enablement rejection of Claims 29-31, 34-36, 39-43, and 52-53.

**Rejections Under 35 U.S.C. § 112, First Paragraph — Written Description**

Claims 30, 32, 35, 37, 40, 42, 44, 46, 48, and 53 were rejected under 35 U.S.C. § 112, First Paragraph, as purportedly lacking sufficient written description. *See Official Action, Page 5, ¶ 7.* This rejection is respectfully traversed.

Not to acquiesce in the Examiner's rejection, but solely to facilitate prosecution, Applicants have canceled Claims 32 and 37 without prejudice or disclaimer. Applicants have amended Claims 30 and 32, from which the remaining rejected claims depend, to require at least 90% identity (and 95% identity for added Claims 54 and 55). In view of these amendments, Applicants submit that having knowledge of the amino acid sequence of SEQ ID NO:1, one of skill in the art could readily create and modify sequences having at least 90% identity thereto and could readily determine whether such sequences maintain "the N-methyl transferase enzyme activities of 7-methylxanthine N3 methyl transferase, theobromine N1 methyl transferase, and paraxanthine N3 methyl transferase."

In view of the foregoing, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, First Paragraph, rejection of Claims 30, 35, 40, 42, 44, 46, 48, and 53.

**Rejections Under 35 U.S.C. § 112, Second Paragraph — Indefiniteness**

Claims 30-33, 35-38, 40, 42, 44, 46, 48, 51, and 53 were rejected under 35 U.S.C. § 112, Second Paragraph, as purportedly indefinite. *See Official Action, Pages 6-7, ¶ 8.* This rejection is respectfully traversed.

Not to acquiesce in the Examiner's rejection, but solely to facilitate prosecution, Applicants have amended Claims 30-33 and 35-53 to correct minor, typographical, and linguistic errors. Applicants believe that these amendments have rendered moot the pending indefiniteness rejections.

In addition, Claims 29 and 34 do claim DNA and RNA molecules, respectively. However, these molecules comprise "nucleotide sequences encoding an N-methyl

transferase of SEQ ID NO:1." (emphasis added). Accordingly, there is sufficient antecedent basis for "the nucleotide sequence of" in Claims 30 and 35. Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, rejection of these claims.

Claims 30 and 35 have been amended such that the portions rejected, e.g., parts iii, iv, and v, have been deleted. Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, rejection of these claims.

Claim 51 has been amended to cure a typographical error and to specify that "said transformed whole plant is a cultured Camellia plant or a cultured Coffea plant." Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, rejection of this claim.

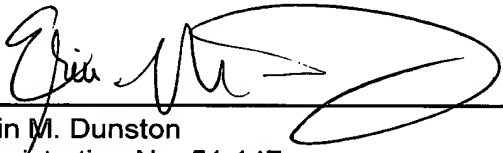
Accordingly, Applicants respectfully request withdrawal of the 35 U.S.C. § 112, Second Paragraph, rejection of Claims 30-33, 35-38, 40, 42, 44, 46, 48, 51, and 53.

**CONCLUSION**

From the foregoing, further and favorable consideration in the form of a Notice of Allowance is respectfully requested and earnestly solicited.

In the event that there are any questions relating to this response, or the application in general, it would be greatly appreciated if the Examiner would telephone the undersigned attorney concerning such questions so that prosecution of this application may be expedited. Should the Examiner wish to speak to Applicants' representative in person, a personal interview to discuss the application could easily be arranged.

Respectfully submitted,  
Burns, Doane, Swecker & Mathis, L.L.P.

By:   
Erin M. Dunston  
Registration No. 51,147

P.O. Box 1404  
Alexandria, Virginia 22313-1404  
(703) 836-6620

Date: November 21, 2003